

DOCUMENT RESUME

ED 297 192

CE 050 730

AUTHOR Gaston, Nancy; Daniels, Patricia
TITLE Guidelines: Writing for Adults with Limited Reading Skills.
INSTITUTION Food and Nutrition Service (DOA), Washington, D.C.
PUB DATE Feb 88
NOTE 25p.
PUB TYPE Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Adult Basic Education; Content Analysis; Difficulty Level; *Expository Writing; *Functional Reading; *Instructional Materials; *Material Development; Readability Formulas; Reading Comprehension; *Writing Skills

ABSTRACT

This guide is intended for use in developing informational materials intended to be read by adults with limited reading skills. Most of the examples used throughout the guidelines relate to food and nutrition; however, the concepts they illustrate are applicable to any topic. The following topics are covered: knowing a written message's intended audience; deciding on and organizing the message to be conveyed; writing the message (tips on using words, writing sentences and paragraphs, and using headings); using illustrations to support the message; formatting to get attention (tips on design and layout, lettering, and visual design); pretesting before production; using a checklist for written materials; and using word lists and readability formulas. A list of selected references and user evaluation form are also included.
(MN)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *



United States
Department of
Agriculture

Food and
Nutrition
Service

Office of
Information

ED 297192

Guidelines: Writing For Adults With Limited Reading Skills

U S DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☒ This document has been reproduced as
received from the person or organization
originating it

☐ Minor changes have been made to improve
reproduction quality

• Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy

CE050730

Contents

INTRODUCTION-----	3
KNOW YOUR AUDIENCE-----	4
DECIDING ON AND ORGANIZING YOUR MESSAGE-----	4
WRITING YOUR MESSAGE-----	5
TIPS ON USING WORDS-----	5
TIPS ON WRITING SENTENCES-----	7
TIPS ON WRITING PARAGRAPHS-----	8
TIPS ON HEADINGS-----	9
USING ILLUSTRATIONS TO SUPPORT THE MESSAGE-----	9
FORMATING TO GET ATTENTION-----	11
TIPS ON DESIGN AND LAYOUT-----	11
TIPS ON LETTERING-----	12
TIPS ON VISUAL DESIGN-----	12
PRETESTING BEFORE PRODUCTION-----	14
CHECKLIST FOR WRITTEN MATERIALS-----	15
WORD LIST-----	16
READABILITY FORMULAS-----	17
SELECTED REFERENCES-----	21
USER EVALUATION-----	23

Guidelines: Writing For Adults With Limited Reading Skills

Introduction

Approximately 27 million U.S. adults are considered functionally illiterate. This means they have not learned to read or cannot read well enough to understand most of the printed material available -- and necessary -- in today's society.

Identifying these people can be difficult. Many have learned to cope, in varying degrees, with their literacy handicap. Many manage to hide their limitations from most of the people with whom they interact.

The following guidelines are intended to help in preparing written materials for adults with limited reading skills. It is directed to writers and editors who have never written for low-literacy audiences or who want to sharpen their skills, as well as to persons not trained as writers and editors but whose responsibilities require preparation of such materials.

The materials discussed in the guidelines are assumed to be informational; the goal is to prepare messages from which readers can gain knowledge. Basic points in preparing any informational material are addressed: Know the characteristics of the audience so that the material is appropriate; clearly identify and organize the message; and present the material in a way to get and hold readers' attention long enough for them to retain the message.

The guidelines do not contain new information. Rather they present information compiled from a variety of resources. Neither are they meant to be comprehensive. Additional grammar, art, graphics, and design resources might be needed to supplement the information, depending on the author's writing and editing experience. A selected list of references for additional information is included in this booklet.

Many of the examples used in the guidelines relate to food and nutrition, however, the concepts they illustrate are applicable to any topic.

After you have used or read "Guidelines: Writing For Adults With Limited Reading Skills," please evaluate its usefulness. An evaluation form is included in the back of the booklet. Your comments and evaluations will help the author develop any future supplemental materials or revisions to the guidelines.

Know Your Audience

To be effective in writing for adults with limited reading skills, you must understand some of their characteristics. Keep in mind one basic point -- the lack of good reading and comprehension skills is not an indication of your readers' intelligence. Your writing style should be simple and direct without "talking down" to them.

A reader with limited reading skills often:

- * Reads at a level at least 1 to 2 school grades below the highest grade completed. Anyone with a reading level below the 5th grade does not have enough language fluency to make good use of written materials.
- * Has a short attention span. The message should be direct, short, and specific.
- * Depends on visual cues to clarify and interpret words. Appropriate pictures, illustrations, and graphics must work in conjunction with words.
- * Has difficulty in understanding complex ideas. The message must be broken down into basic points with supporting information.
- * Lacks a broad set of inferences other than personal experiences from which to draw when reading. Personally involving readers by applying the material to their lifestyle makes it more meaningful.

Deciding On And Organizing Your Message

Ask yourself what the reader needs to know about the subject. List the ideas or concepts you want to convey and refine them to their simplest forms. Then organize the presentation of your message.

- * Be consistent in presenting and organizing the information, from idea to idea and from page to page. Consistency provides continuity to help the reader follow the points you want to make.
- * Put important information either first or last. Even good readers have a tendency to forget or skip over information between the introductory and summary sections.
- * Summarize or repeat ideas or information often to refresh a reader's memory, particularly when preparing materials in a series.
- * Present one idea on a single page (or two pages if they are face to face). This allows the reader to complete an idea without the distraction of having to turn pages. Simple ideas should not need more than two facing pages.

- * Stay with one idea at a time, presenting only the most relevant information. Avoid going off on tangents.
- * Be specific, concise, and accurate so the reader has only the most essential information to think about or decisions to make while reading. Break complex ideas down into sub-ideas.
- * Start with the completed idea you want understood, then provide an explanation or give "how to" information.
- * Sequence information logically. The following are all good sequencing techniques:

- Step-by-step
(1., 2., 3.,)
- Chronological
(a time line)
- Topical
(using main topics and sub-topics)

TO FIND THE BEST MEAT BUYS

1. Look at the package of meat. Decide on the number of family meals you can get from it.
2. Look at the package price. Divide the number of family meals into the package price. This gives you the meal cost.
3. Compare the meal cost of different meats.



Writing Your Message

To the unskilled reader all of the physical elements of the written message are important. Words, sentences, and paragraphs should all work together to make reading easier, enjoyable, and more easily comprehended. Your goal is to keep the "story" or message moving so it does not get boring.

Tips On Using Words

Choose and use your words carefully. That does not necessarily mean using fewer words to explain an idea. Unskilled readers can become frustrated and disinterested in the material if they do not understand or relate to the words on a page.

The list of frequently used written words given on page 16 can be helpful in word selection. Words appropriate to the cultural and environmental backgrounds of the readers can be added to the list.

- * Avoid using abstract words/phrases. If you must use them, help the reader understand them through examples and pictures. For example:

Avoid: "Labels let you in on the inside."

Better: "Food labels can tell you a lot about the food inside the package."

- * Use short, non-technical words of two syllables or less. Hyphenated words are counted as one polysyllabic word.

- * Use live, active verbs and strong, concrete nouns to add strength and emphasis to sentences. Avoid adjectives and adverbs. For example:

Keep your own yard and street clean.
Pick up trash around your home.
Put trash in the proper container.
Work with your neighbor to clean up areas in your
neighborhood and to keep them clean.

- * Use words and expressions familiar to the reader. If you must introduce unfamiliar words, explain them through simple definition, word/picture associations, or by example. Repeat new words at short intervals to make them familiar. For example:

Aquaculture

Many farmers raise catfish and other fish in ponds on their farms. This kind of farming is called aquaculture.

Aquaculture farming works this way. Farmers buy small fish called fingerlings and feed them in the farm ponds. The fish grow to weigh about one or two pounds. Then they are caught and sold to grocery stores and restaurants.

A lot of catfish can be raised in a pond. Aquaculture is a good way to raise a lot of food in a small space. Aquaculture is a good way for some farmers to make money.

- * Avoid sentences with double negatives. Use of negative words may not be objectionable, but positive statements are more motivating. For example:

Avoid: "Do not eat non-nutritious snacks."
Better: "Choose snack foods that are high in nutrients."

- * Avoid a writing style that uses:
 - abbreviations (unless commonly recognizable, i.e. USA)
 - contractions
 - acronyms
 - unfamiliar spelling of words
 - quotation marks

Persons with limited reading skills may not understand them and, more importantly, their eyes may not read over them smoothly.

- * Avoid statistics. Often they are extraneous and difficult for unskilled readers to interpret.

- * Use words with single meanings. Based on how they are used, words, like pictures, can mean different things to different people. For example:

"Poor readers" (unskilled)
 "Poor readers" (limited income)

Tips On Writing Sentences

The three key elements of a sentence (length, punctuation and structure) work together to provide sentence rhythm. Their use or misuse influences the clarity and comprehension of a sentence and the reader's attention. To keep your reader's attention vary sentence rhythm.

Sentence length. Short sentences averaging 8-10 words are ideal. Longer ones tend to contain multiple ideas. They probably should be made into two sentences. To keep sentences short avoid unnecessary words, descriptive phrases and clauses, and parenthetical expressions (clarifying or explanatory remarks put in parenthesis).

Sentence punctuation. Asking questions to emphasize a point is a good technique, wouldn't you say? Exclamation points are good for emphasizing your message, too! But, they can get misused through overuse! So watch it!

Sentence structure. Usually the subject precedes the verb in a sentence. But sometimes, to vary sentence structure, try putting the verb in front of the noun. For example:

"The use of exclamation points should be minimized."
 "Minimize the use of exclamation points."

- * Write generally in the active voice. Active sentences place "doers" before "action," clearly showing the "doer" doing the action. Active sentences present concise, logical, and more direct information to the readers, making a stronger statement than passive sentences. Passive sentences have a form of the verb "to be" (am, is, are, was, were, be, being, been) plus a main verb ending in "en" or "ed". Often passive sentences are wordy and roundabout. The receiver of the verb's action comes before the verb, and the "doer" comes after. For example:

Active: "Jane identified a variety of trees."
 (doer) (verb) (receiver)

Passive: "A variety of trees were identified by Jane."
 (receiver) (verb) (doer)

Tips On Writing Paragraphs

- * Tell readers only what they need to know. Excess information can be confusing and distracting. For example:

Excessive:

"There are many ways to keep food safe to eat. One way to help keep food safe is to always wash your hands before getting food ready to eat. Other things that touch the food should be clean, too, such as pans, knives, spoons, countertops, mixing bowls, and dishes. This is very important if you plan to eat the food raw, such as in green salads. You can pick up bacteria on your hands from things you touch during the day. The bacteria can get on the food you are preparing. There are many kinds of bacteria. Some bacteria will not hurt you, but some of the bacteria can cause you to be ill. Every year many people get ill from eating foods that were prepared by someone who did not keep their hands or cooking tools clean."

Better:

"Always wash your hands before getting food ready to eat. Make sure the pans, knives, bowls, spoons, cutting boards, and other cooking tools are clean before you use them. Keeping your hands and cooking tools clean is VERY important if you plan to eat the food raw, such as in a green salad."

- * Sequence information logically. Build connections between what the reader already knows and any new information presented. For example:

"You may know someone who was sick from eating food that was spoiled. Sometimes spoiled food does not look or taste spoiled. Here are some rules that can help you keep food safe to eat.

Keep food clean.
Keep hot foods hot.
Keep cold foods cold."

- * Use short paragraphs.

Tips On Headings

Headings are useful organization tools. They give an ordered look to the material, help readers locate information quickly, and give cues about the message content.

READ LABELS TO KNOW WHAT YOU ARE PAYING FOR!

Ingredient Listing

Ingredients are listed in order from the most to the least amount found in the product

Grape Juice:

Grape juice, grape juice from concentrate, ascorbic acid (vitamin C). No artificial flavors or colors added.



Grape Juice Drink, (10% Grape Juice)

Water, high fructose corn syrup, sugar, grape juice concentrate, fumaric acid, citric acid, natural flavors, vitamin C, natural flavor, artificial color.



Powdered Grape Drink:

Sugar, citric acid (provides tartness), natural and artificial flavor, artificial color, vitamin C.



This label tells you:

- mostly grape juice and juice concentrate
- vitamin C added

This label tells you:

- mostly added water, syrup, and sugar
- some grape juice
- vitamin C added, plus other things

This label tells you:

- mostly sugar
- no juice at all
- vitamin C added, plus other things

Dates on Packages

- Look for dates on product labels. They tell you when foods are the freshest.
- The "Sell by" and "Best when purchased by" dates give you some time for home storage and use.
- The "Do not use after" date warns you that the food should not be used after that date.

Package Weight

- Look at the weight.
- A large package may hold less than a smaller package.



Nutrition Information

The nutrition label tells you:

- the size of a serving
- how many servings you get in the container
- nutrients in a serving:
 - how many calories
 - how much protein, fat, and carbohydrate
 - how much vitamins and minerals

- * Short explanatory headings are more instructional than single words that tend to be abstract. Abstract words are not specific enough. If readers must decipher words, you may lose their attention.
- * Visuals with headings allow readers to react before more detailed information is given, particularly if the information is new.
- * Headings are most effective when used with longer paragraphs, but for unskilled readers they are also appropriate for shorter messages.
- * Captions or headings should summarize and emphasize important information.

Using Illustrations To Support The Message

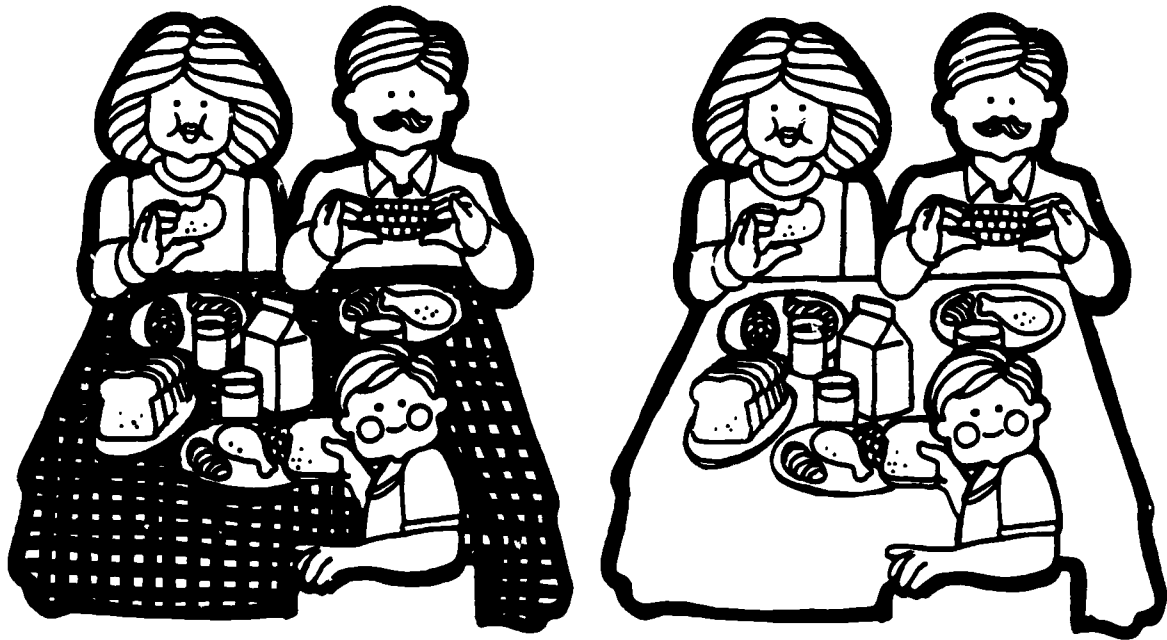
Photographs and line art attract and keep a reader's interest and are often remembered longer than words. Properly chosen and placed illustrations make the text more meaningful and reduce the burden of details in the text.

Illustrations should be used with a specific informational purpose in mind, not just as decoration. They should emphasize, explain, or summarize the text.

- * Place illustrations, along with any captions, next to the related text.

- * Use captions or text that tell readers what to look for in the illustration. People see different things in the same picture, based on their experiences and knowledge.
- * Keep illustrations simple by removing unneeded background or extraneous detail. Each variation in types of line, shapes, textures, and spacial arrangements adds to the complexity of the illustration.

Example of removing extraneous detail:



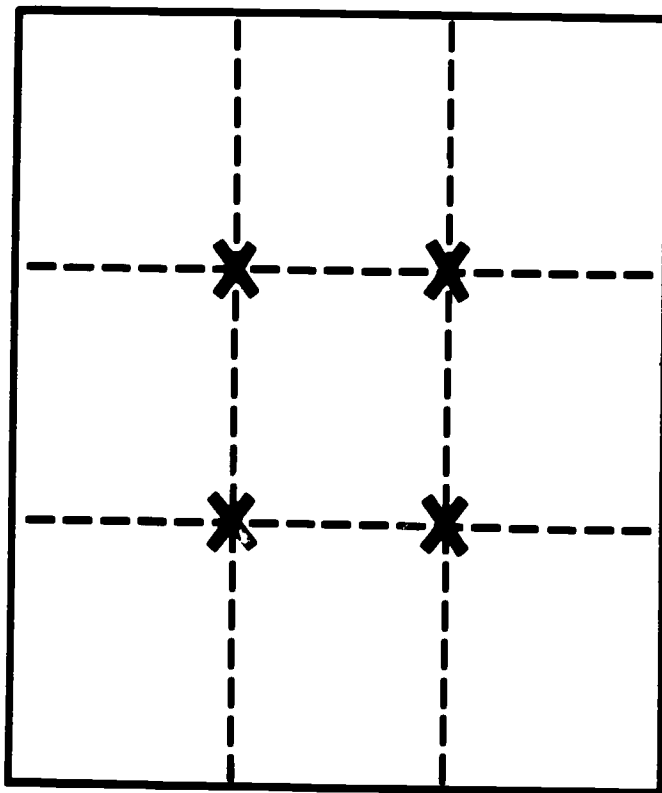
- * Use realistic pictures of people or activities to which a reader can identify. By being able to identify with characters or action in a picture, a reader may feel more personally involved with the message. Choose full-face pictures of people or illustrations that show definite actions that are easy to understand.
- * Be cautious in using two illustrations showing wanted versus unwanted behavior or action. If the difference is not distinct, the reader may get the wrong message.
- * Illustrations should get the reader's attention and complement the message, not dominate the reader's attention.

Formating To Get Attention

If your written material does not attract the attention of its audience, chances are your message will never be read. Both the overall visual presentation and the written message are important in developing useful and effective materials. Your format should be a simple, uncluttered, and balanced layout of text, illustrations, and design features. Once you have finished formating, try the "upside-down" test. If you turn the finished layout upside-down, it should look as good and be as appealing as it does right-side up.

Tips On Design And Layout

- * Balance illustrations and words with background space. Lots of white space and wide margins will make your work seem simple and uncluttered.
- * Start the message in the upper left corner or upper middle of the page.
- * Put text and illustrations of greatest interest in the places marked by X's around the center square of a page, as if it had been divided into thirds both horizontally and vertically. For example:



- * Number frames of sequential or grouped information. Numbering leads a reader logically through the message.
- * Avoid lengthy lists. Unskilled readers have trouble remembering items on a list. Also, like most of us, they get bored reading lists.

10 POINT

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890

12 POINT

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890

14 POINT

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234
ABCDEFGHIJKLMNOPQRSTUVWXYZ12

16 POINT

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

24 POINT

ABCDEFGHIJKLMN
abcdefghijklmnopqr
ABCDEFGHIJKLMNOQ

Tips On Lettering

- * Select a style and size of typeface (lettering) that is easy to look at and read.
- * A simple typeface without italics, serifs, or curls is good. Handwriting (script) is difficult for unskilled readers to read. A good range of typeface sizes would be from 10-14 points.
- * Mix upper and lower case lettering together. They are easier to read than LETTERING IN ALL CAPITALS.
- * Avoid crowding letters. Rely on what is pleasing to the eye. Try mixing both mechanical and optical spacing techniques:

Mechanical spacing is equal distance between letters without regard to letter shape.

Optional spacing allows shapes of letters to determine spacing between them.

- * Contrast lettering color with background color. The best ink and paper combinations for reading are those which provide good contrast. Dark ink colors, particularly black, dark blue, and brown, on white or off-white paper are very legible. If photocopies of the material are sharp and clear, the contrast is good.
- * Thin, dark lettering on a light background is best. If light-colored lettering on a dark background is used, the lettering should be a thicker typeface to facilitate reading. For example:

Ingredient Listing

Ingredients are listed in order from the most to the least amount found in the product.

Tips On Visual Design

Every element of a publication's design should serve a purpose. Heading, visual devices, and spacing help to attract and keep the reader's attention, organize the information, and keep the "story" moving.

Visual devices draw the reader's attention to the most important places on a page. However, their overuse could be distracting.

- * Use arrows, color, and other highlighting techniques to lead the reader's eye sequentially from one piece of information to the next.
- * Box in concepts that belong together or stress common similarities or differences.

Sugar: The Basic Facts

What is Sugar?

To most people, "sugar" means white table sugar in the Dietary Guidelines. "sugar" means all forms of caloric sweeteners, including white sugar, brown sugar, raw sugar, corn syrup, honey, and molasses.

Table sugar, or sucrose, is the most commonly used sugar. Corn-based sweeteners are also used in large amounts in food processing.

Sugars are simple carbohydrates. Another type of carbohydrate, complex carbohydrate, includes starch and dietary fiber. It is discussed in another bulletin in this series.

How Much Sugar is in the Foods You Eat?

The tradeoffs below are equations that show approximately how much sugar is added to some popular foods. Foods on each side of the equation provide about the same amount of nutrients. For example, milk- and grain-based desserts provide the same nutrients as the enriched flour or milk from which they are made, but they also provide much more sugar and fat.

Sugary Foods

1 tsp jam or jelly	= 1 tsp sugar, syrup, or molasses
1-ounce chocolate bar	= 2 tsp fat + 4 tsp sugar
12 ounces fruit drink, soda, or punch	= 12 tsp sugar
12 ounces cola	= 9 tsp sugar

Spacing is important. Generally, the size of the page dictates an appropriate column width, typeface style and size, spacing between lines, and the placement of visuals. Maintaining consistency in spacing throughout your work is important.

Margins. If possible make margins wider at the bottom than at the top of the page and equalize side margins.

- * Use an unjustified right margin. "Justifying" makes consistent spacing within and between words and can confuse an unskilled reader.

Justified

A justified right hand margin will have each line end at exactly the same place on the right margin and be the same length. The spacing will be uneven between words. Newspaper columns are good examples of justified margins.

Unjustified

An unjustified right hand margin will have each line end at different places on the right margin. Like this example, each line will be a different length. No irregularity can be seen with the spacing between words.

Columns. Use narrow columns, such as this one. They are easier to read. A 40-45 character column is recommended.

Paragraphs. When paragraphs are short, do not indent. When text is complex, start each sentence of a paragraph on a new line. Double space between paragraphs; single space between a heading and the first paragraph.

Words. Avoid putting the first word of a sentence as the last word on a line.

Pretesting Before Production

Pretesting allows an opportunity to evaluate and reassess the material for appropriateness with the target audience. There are two good pretesting resources described in the Readability Formulas section on page 17. Additional materials may be available at your local library.

Results of a pretest should give feedback on five basic components of effective communication: attractiveness, comprehension, acceptability, self-involvement, and persuasion.

Attractiveness is visual appeal. Its role is to motivate readers to pick up the material and read it. Visual appeal includes elements such as:

- Overall design
- Title
- Color
- Illustrations

Comprehension is how well the ideas are understood and retained. Elements that affect comprehension include:

- Repetition of key words or concepts
- Sentence structure
- Word usage
- Highlighting techniques
- Appropriate reading level

One element the writer cannot control, but which strongly influences comprehension, is the extent to which a reader's background knowledge and experiences can be applied to make the material meaningful.

Acceptability is a condition (state) of favorable approval or belief. Some elements that make written materials acceptable include:

- Culturally appropriate illustrations and words
- Credibility of the author
- Legibility of typeface

Self-involvement is the degree to which readers can apply what they read to their own life style. Elements that contribute to self-involvement are:

- Action-oriented illustrations that incorporate the reader's point of view
- Text with personal references
- Words common to the reader's vocabulary.

Persuasion is the ability to convince the reader to undertake a desired behavior or accept new information. Persuasion can be achieved through:

- Identifying and presenting topics relative to the reader's concerns
- Logically sequencing information
- Being a credible author in the eyes of the reader or quoting a well known, reliable source.

Checklist For Written Materials

Check how your materials meet some of the basic techniques on writing for adults with limited reading skills.

- ☐ Need for information is established.
- ☐ Information is useful without being extraneous.
- ☐ Target Audience is identified. Its characteristics are understood and not forgotten as the primary receiver of the information.
- ☐ Audience is made to feel personally involved and motivated to read the material.
- ☐ Sentences are simple, short, specific, and mostly in the active voice.
- ☐ Each idea is clear, logically sequenced, and limited to one page or two pages, face to face. Important points are highlighted and summarized.
- ☐ Illustrations are relevant to text, meaningful to the audience, and appropriately located.
- ☐ Words are familiar to the reader. Any new words are clearly defined. None, or very few, are three syllables or more.
- ☐ Readability level is determined to be close to 5th grade level.
- ☐ Layout balances white space with words and illustrations.

Word List

High frequency words that make up about 60% of written language.

a	country	hard	made	parts	think	year
about	*	has	make	people	this	years
above		have	man	picture	those	you
across	day	he	many	place	thought	your
after	days	head	may	put	three	*
again	did	help	me	*	through	
air	different	her	men		time	
all	do	here	might	read	times	
almost	does	high	more	right	to	
along	don't	him	most	*	today	
also	down	his	mother		together	
always	during	home	mr.	said	too	
an	*	house	much	same	took	
and		how	must	saw	two	
animals	each	however	my	say	*	
another	earth	*	*	school		
any	end			second	under	
are	enough	I	name	see	until	
around	even	if	near	sentence	up	
as	ever	important	need	set	us	
asked	every	in	never	she	use	
at	eyes	into	new	should	used	
away	*	is	next	show	*	
*		it	night	side		
	far	its	no	since	want	
back	father	*	not	small	was	
be	feet		now	so	water	
because	few	just	number	some	way	
been	find	*	*	something	we	
before	first			sometimes	well	
began	following	keep	of	soon	went	
being	food	kind	off	sound	were	
below	for	know	often	still	what	
best	form	*	old	story	when	
better	found		on	study	where	
between	four	land	once	such	which	
big	from	large	one	*	while	
both	*	last	only		white	
boy		left	or	take	who	
boys	get	let	other	tell	why	
but	give	life	others	than	will	
by	go	light	our	that	with	
*	going	like	out	the	without	
	good	line	over	their	words	
called	got	little	own	them	work	
came	great	live	*	then	works	
can	*	long		there	world	
children		look	page	these	would	
come	had	looked	paper	they	write	
could	hand	*	part	things	*	

Word Frequency Book by John B. Carroll, Peter Davies, and Barry Richmen, Houghton Mifflin Co. and American Heritage Publishing Co., 1971.

Readability Formulas

A readability formula is a mathematically-obtained rating of the grade reading level of written materials. The vocabulary, sentence structure, and word density are the components of your material that influence its readability. In general, as sentences become shorter and less complex and words become simpler (i.e., two syllables or less), the reading level of the material goes down.

If the reading level of your audience is unknown, then it is probably best to keep the reading level at the 5th or 6th grade level and thus useful to most people.

The two most frequently used readability formulas are the Fry Graph Reading Level Index and the SMOG Readability Formula. Both tests are quick but useful tools to help writers determine the level of difficulty of written materials. However, there are limitations to their application. First, the tests do not take into consideration the characteristics of a reader's skill. Everyone's reading ability will vary depending on their interest and prior knowledge about a subject. Also the tests cannot measure the conceptual difficulty or complexity of written materials that result from the writer's presentation and organization of subject matter. It is up to the writer to know and understand the reading audience well enough to apply basic writing skills, to maximize the comprehension of the message, and to make it meaningful to the audience.

Test your materials with both the SMOG and Fry readability tests. Together they can give you an estimate of the reading difficulty.

Fry Graph Reading Level Index(1)

The Fry Graph method for determining the reading level of written materials is based on three 100-word passages. If your materials are shorter, you may need to modify the recommended number of words and sentences to use this index. For shorter materials the SMOG Readability Formula may be appropriate.

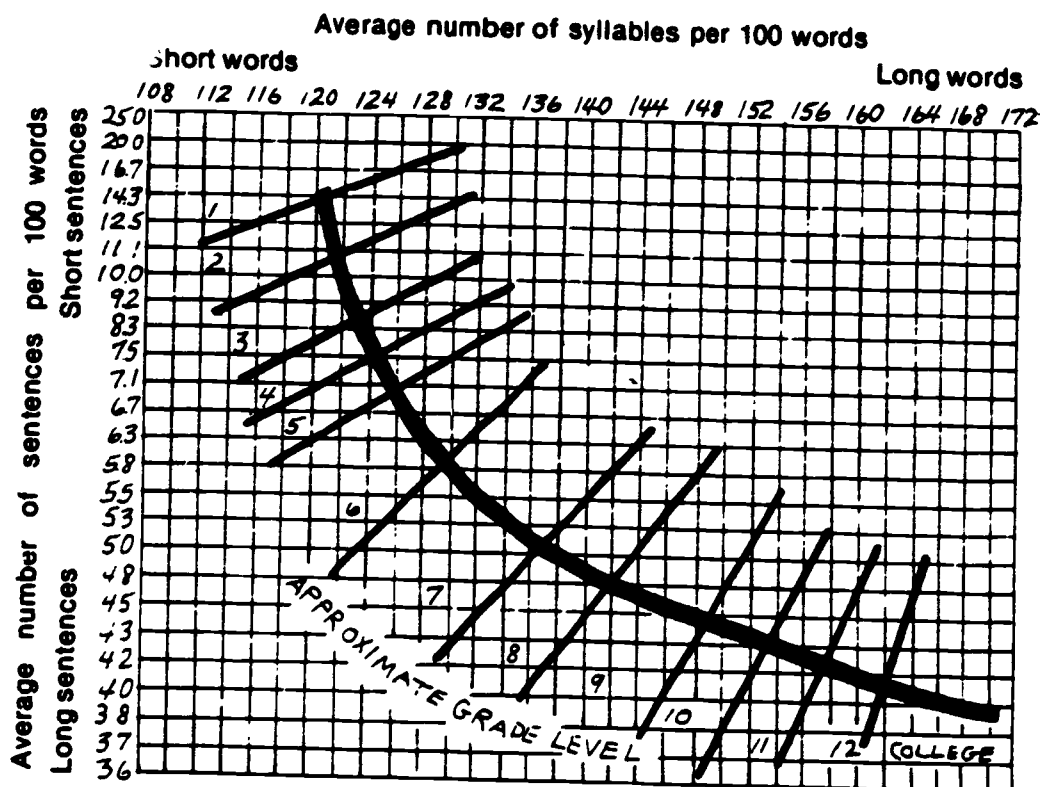
Steps to using the Fry Graph:

1. Select a total of three 100-word passages, one each from the beginning, middle, and end of the material. Skip all proper nouns.
2. Count the total number of sentences in each 100-word passage (estimating to the nearest tenth of a sentence). Average these three numbers (add together and divide by three).
3. Count the total number of syllables in each 100-word passage. There is a syllable for each vowel sound, for example: cat(1), blackbird(2), continental(4). (For convenience you may count every syllable over one in each word and add 100). Average the total number of syllables for the three samples.

4. Plot on the Fry Graph the average number of sentences per 100 words and the average number of syllables per 100 words. Most plot points fall near the heavy curved line. Perpendicular lines mark off approximate grade level areas. For example:

	Sentences per 100 words	Syllables per 100 Words
1st 100-word passage	9.1	122
2nd 100-word passage	8.5	140
3rd 100-word passage	7.0	129
Total	24.6	391
Average (Total ÷ 3)	8.2	130

THE FRY GRAPH



5. After plotting these averages on the graph, we find they fall in the fifth grade area. If great variability is encountered either in sentence length or in the syllable count for the three selections, then randomly select several more passages and average them in before plotting.

(1) Edward Fry, "Readability Formula That Saves Time," Journal of Reading, Vol. II, No. 7 (April 1986), p. 512-516, 575-578.

Author's Note: A Fry Readability Scale can be purchased for \$3.00 each plus a postage and handling fee from: Fry Readability Scale, Jamestown Publishing, PO Box 6743, Providence, RI 02940. For orders sent by fourth class mail: \$1.00 minimum charge plus 5% for postage and handling; orders sent by UPS: \$2.25 minimum charge plus 10%.

SMOG Readability Formula(2)

The SMOG formula is useful for shorter materials. To calculate the SMOG reading level, begin with the entire written work that is being assessed and follow these steps:

1. Count off 10 consecutive sentences near the beginning, in the middle, and near the end of the text. If the text has fewer than 30 sentences, use as many as are provided.
2. Count the number of words containing 3 or more syllables (polysyllabic) including repetitions of the same words.
3. Look up the approximate grade level on the SMOG Conversion Table(3):

Total Polysyllabic Word Count	Approx. Grade Level (+1.5 Grades)
0-2	4
3-6	5
7-12	6
13-20	7
21-30	8
31-42	9
43-56	10
57-72	11
73-90	12
91-110	13
111-132	14
133-156	15
157-182	16
183-210	17
211-240	18

When using the SMOG formula:

- * A sentence is defined as a string of words punctuated with a period, an exclamation mark, or a question mark. Consider long sentences with a semi-colon as two sentences.
- * Hyphenated words are considered as one word.
- * Numbers which are written out should be counted. If written in numeric form, they should be pronounced to determine if they are polysyllabic.
- * Proper nouns, if polysyllabic, should be counted.
- * Abbreviations should be read as though unabbreviated to determine if they are polysyllabic. However, abbreviations should be avoided unless commonly known.

Example using the SMOG Readability Formula:

The example is from a pamphlet produced by La Leche League (Oct. 1982).

Three passages of 10 sentences (numbered) each and the polysyllabic words (circled) in them have been counted. There are 29 polysyllabic words in the total 30 sentences. According to the SMOG Conversion Table, the approximate grade level is 8th.

- 1) **RIGHT AFTER BABY IS BORN**, begin breastfeeding the sooner the better. The early milk will give baby extra protection against sickness. And baby's nursing will get you back into shape quicker.
- 2) **WHILE YOU'RE AT HOME**, you can be with your baby, loving and nursing him, to your heart's content. Many little babies want to nurse every couple of hours. This frequent nursing brings in the milk. It's so easy, and you enjoy baby so much and feel so close to him, you'll hardly notice how many times you are feeding him.
- 3) **TRY TO HAVE** at least six to eight weeks at home to rest and give baby a good start before you go back to your job. Some mothers have to go back sooner, but they ask for the shortest hours possible.
- 4) **NIGHT FEEDINGS ARE EASIER** when you're breastfeeding. When baby wakes at night, just take him in bed with you to nurse. The nighttime nursing helps keep up your milk supply, and baby and you both enjoy the nursing and cuddling and drifting off to sleep together.
- 5) **AS SOON AS POSSIBLE** after baby is born, learn how to express milk from your breasts.
- 6) A nurse in the hospital or clinic, or another nursing mother, may be able to show you how this is done. There's also a section about expressing and storing mother's milk in the manual THE WOMANLY ART OF BREASTFEEDING.
- 7) **AFTER YOU ARE BACK ON THE JOB**, you can express milk on your coffee break and lunch hour to take care of the fullness in your breasts. The next day you can leave this milk in a bottle to be given to baby.
- 8) **THE MILK YOU EXPRESS** will have to be kept cold, of course. If there's a cafeteria in the office or factory where you work, you can ask the manager for a little space on a refrigerator shelf. Or you can bring a large thermos jug filled with ice from home to keep your container of milk in while you are at work and while carrying it home to put in your refrigerator. Whatever plan you work out, it will mean that baby can still have your good milk even when you aren't there. And you'll be more comfortable too.
- 9) **BEFORE YOU LEAVE FOR WORK** and when you get home, you and baby can relax and enjoy a nursing time together. It's a nice way to say "good-bye for now" and "I'm home again, baby." During weekends and on days off, baby can really feast at your breast. And of course you keep right on with those night-time nursings.
- 10) **NO AMOUNT OF MONEY CAN BUY** the many good things that come with breastfeeding.
- 11) No formula can compare with mother's milk.
- 12) A baby on breast milk has fewer stomach upsets and diarrhea. But the main thing is baby's happiness. You just won't believe what this extra-special mothering will mean to him.
- 13) **SO GIVE BREASTFEEDING A TRY**, taking things a day at a time. If you have any questions--most of us do when we're starting out--ask a friend who is happily nursing her own baby. The mothers of La Leche League are friends who want to help you breastfeed. Call or write us!

(2) McLaughlin, G. Harry. "SMOG Grading: A New Readability Formula." Journal of Reading, Vol. 12, No. 8 (May 1969), p. 639-46.

(3) Table developed by: Harold C. McGraw, Office of Educational Research, Baltimore County Schools, Towson, MD.

Selected References

The following selected references can provide additional information to help in developing materials for adults with limited reading skills:

Readability Formula

Dale, Edgar and Jeanne S. Chall, "A Formula for Predicting Readability." Education Research Bulletin, Vol. 27, Jan. 21, 1948.

Flesch, R., How To Test Readability. New York, Harper and Brothers, 1951.

Fry, Edward, "A Readability Formula That Saves Time." Journal of Reading, Vol. 11, No. 7 (April 1968), p. 512-16, 575-78.

McLaughlin, G. Harry, "SMOG Grading: A New Readability Formula." Journal of Reading, Vol. 12, No. 8 (May 1969), p. 639-46.

Scully, Sarah V. and Joan Doyle, E.M.P.O.W.E.R.: Evaluate Materials To Promote Optimal Use of WIC Education Resources. Massachusetts WIC Program, Department of Public Health, April 1985.

U.S. Department of Agriculture, Food and Nutrition Service, The Idea Book: Sharing Nutrition Education Experiences. FNS-234, Sept. 1981.

Readability Testing in Cancer Communications. Reprinted June 1981 by the Office of Cancer Communications, National Cancer Institute, Bethesda, MD.

Writing, Rewriting and Design

Felker, Daniel B., Ed., Document Design: A Review of Relevant Research. Document Design Center, American Institutes for Research, Washington, DC, April 1980.

Doak, Cecelia C., Leonard G. Doak, and Jane H. Root, Teaching Patients With Low Literacy Skills. J.B. Lippincott Co., Philadelphia, 1985.

Charrow, Veda R., "Let The Rewriter Beware". Document Design Center, American Institutes for Research, Washington, DC, Dec. 1979.

Pitt, Dennis W., Ed., Audiovisual Communications Handbook. Peace Corps contract 25-1707, Audio Visual Center, I.U., Bloomington, IN. 1976. Available from: World Neighbors, 5116 North Portland Avenue, Oklahoma City, OK 73112

Felker, Daniel B., Frances Pickering, Veda R. Charrow, V. Melissa Holland, and Janice C. Redish, Guidelines for Document Designers. Document Design Center, American Institutes for Research, Washington, DC, Nov. 1981.

Boyce, M.R., Guidelines For Printed Materials For Older Adults. Michigan Health Council, East Lansing, MI, 1982.

Hartley, James, Designing Instructional Text, Second Edition. Kogan Page Ltd., London, England, 1985.

Sadowski, Mary A., "Elements of Composition." Technical Communications, Vol. 34, No. 1 (Feb. 1987), p. 29-30.

Pretesting

Bertrand, Jane T., Communications Pretesting. Media Monograph 6, Communications Laboratory, Community and Family Study Center, University of Chicago, Chicago, 1978.

Pretesting in Health Communications: Methods, Examples and Resources for Improving Health Messages and Materials. U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute, Bethesda, MD. NIH Publication No. 83-1493, Revised Dec. 1982.

Developed by: Nancy Gaston and Patricia Daniels, FNS
Edited by: Lillie Sheehan, GPA
Design: Jan Proctor, GPA
Typing: Kay McCormick, GPA

February 1988

Guidelines: Writing For Adults With Limited Reading Skills

User Evaluation

Your comments will help us to evaluate this publication. Please complete the questionnaire, fold it, seal it with tape and mail it. Thank you!

Name (optional) _____

Title _____

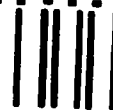
Organization _____

City and State _____

1. Have the guidelines helped you to better understand some basic techniques on how to write or revise written materials for unskilled adult readers?
Yes ___ No ___
2. Have the guidelines helped you in your work?
Write new materials _____
Revise Materials _____
Other (specify) _____
3. Are the guidelines easy to read?
Yes ___ No ___
4. Do the guidelines omit any information you think should be included?
Yes ___ No ___ If yes, what was omitted?
5. Do the guidelines cover information you think is unnecessary?
Yes ___ No ___ If yes, what information is unnecessary?
6. Please comment on the content of the guidelines--Tips on Writing, Using Illustrations, Formatting, Checklist, Readability Formulas:

U.S. DEPARTMENT OF AGRICULTURE
FOOD AND NUTRITION SERVICE
ALEXANDRIA, VA 22302

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO 12725 WASHINGTON, D C

POSTAGE WILL BE PAID BY USDA

Nutrition and Technical Services Division
Food and Nutrition Service
U.S. Department of Agriculture
3101 Park Center Drive, Room 609
Alexandria, Virginia 22302

